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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/509,103

02/04/2005

Jean Beguinot

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23373 7590 10/14/2008  
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EXAMINER

YANG, JIE

ART UNIT

PAPER NUMBER

1793

MAIL DATE

DELIVERY MODE

10/14/2008

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/509,103	<b>Applicant(s)</b> BEGUINOT, JEAN	
	<b>Examiner</b> JIE YANG	<b>Art Unit</b> 1793	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 07 July 2008.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-15 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

### **DETAILED ACTION**

Claims 1-15 are pending in application.

#### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-10 and 12-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ichikawa et al (JP 8-165542, thereafter JP'542, based on English translation) in view of Jean et al (US 5,714,116, thereafter US'116) and Bobbert et al (US 5,458,704, thereafter US'704).

JP'542 in view of US'116 and US'704 is applied to the claims 1-10 and 12-15 for the same reason as stated in the previous rejection dated 3/6/2008.

Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over JP'542, in view of US'116 and US'704, and further in view of Lars-Ake et al (US 6,048,491, thereafter US'491).

JP'542 in view US'116 and US'704, and further in view of US'491 is applied to the claim 11 for the same reason as stated in the previous rejection dated 3/6/2008.

***Response to Arguments***

Applicant's arguments, see "applicant arguments/remarks", filed 7/7/2008, with respect to objection to the rejections for claims 1-15 under 35 U.S.C. 103(a) have been fully considered and are not persuasive.

Applicant's arguments are summarized as follows:

1, The differences between the steel of present invention and the steel of JP 8-165542 are: A) Si less than 0.15 in the present invention in order to improve the thermal conductivity but Si is from 0.2 to 0.25wt% in JP'524; B) Boron is necessary in the present invention but boron is considered as harmful in JP'542; and C) The hardness is between 430 to 530 at all points but the hardness is less than 460HB by the side of the base material of weld junction.

2, Regarding US'116, this document describes an abrasion resistant steel not a steel for moulds. US'116 teaches  $Si+Al \geq 0.6\%$  and  $Al \leq 0.2\%$ . It results Si greater than 0.4% which is not compatible with the limit of less than 0.15wt% Si in the present invention.

3, Regarding US'704, this document relates to steel for armor, which is very different from the steel for moulds. There is no reason to limit the silicon content.

4, Further, US'491 does not make up for all the deficiencies of JP'542, US'116, and US'704.

**Responses are as follows:**

Regarding the arguments 1-4, the applicant's arguments are against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). In the instant case, JP'542 in view of US'116 and US'704 is applied to the claims 1-10 and 12-15, and JP'542 in view US'116 and US'704, and further in view of US'491 teaches the limitations of instant claim 11. The motivations for combining these references can refer to the office action marked 3/6/2008. The Examiner notices the applicants did not submit any thermal conductivity data to support the argument related to: "Si less than 0.15 in the present invention in order to improve the thermal conductivity". The Examiner notices JP'542 teaches that B is not more than 0.002 wt%, which overlaps the claimed B range of 0.0005 to 0.01wt%. The Examiner further notices JP'542 teaches controlling the BH by preheating and post heating to obtain the desired hardness (HB 460 or less) (Paragraph [0026] of JP'542),

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which overlaps the hardness range of 430HB to 530HB as recited in the instant claims. It would have been obvious to one of ordinary skill in the art at the time the invention was made to control the preheating and post heating to obtain desired hardness as demonstrated by JP'542. Regarding the prior arts US'116 and US'704, as pointed out in the previous office action marked 3/6/2008, the major alloy composition ranges of US'116 and US'704 overlap the composition ranges as recited in the instant invention. Refer to **MPEP 2144.05 I**, a prima facie obviousness is rendered. The detail discussions and the motivation for combining these prior arts can refer to the previous office action marked 3/6/2008.

### ***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

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the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jie Yang whose telephone number is 571-270-1884.

The examiner can normally be reached on M-F, 7:30-5:00 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Roy King can be reached on 571-2721244. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

JY

/Roy King/

Supervisory Patent Examiner, Art Unit 1793